



Choosing a Search Engine

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Search Engine Types

- 1. Enterprise Search** - searches content within an organization
 - Application Service Providers
 - Search Appliances
- 2. Web Search** – searches web-based content
 - Free and Low-Cost Options
 - Syndicated Indexes



Enterprise Search

- Examples: Convera, Verity, InQuira
- Assumes users are within the enterprise
- Search is often an integrated feature
- Tools for organizing information that is not stored on Web pages
- Different standard of relevance than Web Search
 - Popularity is a key factor in Web Search
 - Keyword matching and semantic analysis are key factors in Enterprise Search
 - Enterprise is metadata dependent, Web search ignores most meta tags



Enterprise Search

Pros

- Tools for organizing enterprise information
- Good solution if you have needs beyond site search

Cons

- Made require a lot of editorial tweaks if used as site search for citizens
- Expensive site search solution





Search ASP

- Examples: Atomz, Mondosoft, Innerprise,
- Crawls a website, hosts the index and search engine
- Managed, on-demand service
 - Nothing to download, install or maintain
 - Customization of search results pages
 - Control over indexing frequency and scope
- Services generally limited to small sites



Search Appliances

- All-in-one, plug-and-play hardware and software search solution
- Control over indexing and administration
- Becoming increasingly affordable
 - E.g. \$3,000 to index up to 100K documents
- Examples: Google and Thunderstone
- Good, robust solution for agencies of all sizes who don't want to spend time on search



Free/Low-Cost Web Search

- Examples: Free versions of Google and MSN
- Cut and paste search box
- Your site or the whole web
- Very limited customization
- No control over indexing
- Not an appropriate solution for government agencies



Syndicated Web Search

- Model used by major web portals: AOL, A9, etc.
- Results return XML file in response to an HTTP GET
- Requires agency to supply front-end presentation layer
- Little control over crawling, indexing and relevancy
- Cost per query or page view
- Inexpensive, but can be costly if you don't have a built front-end



What about FirstGov Search?

Currently FirstGov Search....

- Is an Enterprise search engine that is expected to perform like a Web search engine
- Was pitched as an ASP via its affiliate program, but is only capable of functioning like a free web search

Result: lots of unhappy people





Lessons Learned

- **FirstGov Search duplicates work in the private sector**
 - Designed to operate in a manner comparable to Google, Yahoo, MSN, etc.
 - FirstGov is attempting to provide similar services with significantly fewer technical resources and staff
- **Search technology is enterprise, not Web-based**
- **Relevancy and quality not on par with commercial services**
 - Because FirstGov does not crawl the entire Web, it cannot determine link popularity
- **Unable to provide differentiating services that make FirstGov Search especially useful to citizens**



The Immediate Solution

Step 1: Improve Search Functionality

- Implement standard search best practices
- Perform baseline usability tests
- May 12, 2005 - launch new search features and design

Step 2: Agency Outreach

- Clear up misconceptions
- Understand search requirements, expectations
- Plan for future services to agencies



New Search Model

- Follow proven **Syndicated Web Search** model deployed at the most popular consumer portals (AOL, A9, etc.)
- “Subscribe” to government-wide index produced by a major commercial search engine producer
- Expanded search offerings
 - Citizen access to over 100 million govt web pages from federal, state and local governments
 - Also include images and news
- Vendor hosts search front-end for rendering and publishing search engine results pages in FirstGov look and feel (transparent to citizen)



Benefits

- Eliminates costs and complexity of running our own search infrastructure
- Cost savings applied to providing citizens with expanded coverage, resources and functionality that makes it easier to find government information
 - Expand current offerings more than 10 fold
 - Add comprehensive Image and News search
 - Allow search team to develop differentiating front-end features that add value to the core index (e.g, spotlight content, vertical searches, shortcuts, etc.)



New Affiliate Program

1. Procurement Guidance

- Provide contract vehicle for search
 - Agencies may acquire search from FirstGov vendor tailored to their requirements
 - Allows agencies to easily get a customized solution
- Search Team offers agencies help with finding an optimal search solution



New Affiliate Program

2. Feature Syndication

- Value-added features built for FirstGov (e.g. “best bets”) will be available for free to agencies

3. Outreach

- Share best practices and industry knowledge
- Build communities of interest around Search
- Provide professional guidance to government agencies



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